

BACKGROUND PAPER

PAST AND PRESENT USES OF TITLE II

NON-FAT DRY MILK IN HUMANITARIAN OPERATIONS

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BACKGROUND PAPER
PAST AND PRESENT USES OF TITLE II NON-FAT DRY MILK IN HUMANITARIAN
OPERATIONS

SECTION I: USE OF MILK POWDERS IN HUMANITARIAN OPERATIONS

From the 1960s to 1980s there was an abundance of U.S. milk powder¹ for humanitarian purposes. European Union surpluses were given as free or subsidized foreign aid for development and emergency purposes. Donated milk powders were intended for either nutritional improvements or income transfers. Nutritional purposes included contribution to infant and young child feeding programs (growth and catch-up growth and complementary feeding with fortified blended foods with milk proteins) and school feeding.

Fortification became an issue because local diets in many developing countries often lacked essential vitamins and minerals. Many refugees and internally displaced people subsisting on relief food commodities also exhibited nutrient deficiencies, a problem that still challenges prolonged relief efforts today. Dried skim milk (DSM) also known as non-fat dried milk (NFDM) was also monetized, - i.e., sold to countries for use or sale in those countries, with proceeds of the sale used to operate development programs run by nongovernmental organizations. DSM has been used in a variety of other ways, including replacement milk for animal feed and promotion of dairy industries in developing countries. Examples of each of these uses are cited in this section.

Studies have shown that the nutrition effect of feeding programs is not necessarily a result of the nutritional content of the aid but rather of its income transfer potential.² CARE (1977) found that mothers enrolled in their feeding programs spent less on food. And in Peru (1970) supplemental food donated were used as substitute food. Other studies in the 1980s found that food supplementation freed family resources to purchase other material or food needs. A 21-program study by Beaton and Ghassemi (1982) found the net increase in intended food intake in areas receiving food supplementation to be 45%–70% of the food distributed. The author suspected that the difference in intakes was attributable to leakage from household food sharing and displacement of foods in the existing diet. A study of data from Colombia (1969) found that education programs alone, without increased household resources to allow participants to pay for nutritionally superior foods, do not improve diets.³

Mother and Child Feeding and Health Programs

From the 1950s until the mid-1980s DSM was commonly given as part of the general dry ration in food-for-work (FFW) programs and partial wage repayment programs for employment schemes. Rations were considered a wage transfer, but in many cases select commodities were given as nutritional supplements for vulnerable populations (pregnant or lactating mothers and children). Examples of FFW activities include agricultural development (irrigation systems, culverts, and wells) and infrastructure development (roads, ditches, terracing, and warehouses). Supporting nutritional well-being through FFW is a less precise means of improving nutrition than SFP or TFP, because take-home rations are typically shared within the household or sold so to purchase other essential items. Supplementary feeding programs were designed to better target

vulnerable populations. Provision of dry take-home rations has involved issues similar to those raised by FFW rations, although such foods can be marketed as complementary foods (e.g., wheat milk blend or corn soya blend) for young children. Nutrition education and “wet” feeding at distribution centers complement these efforts.

Early problems in use of NFDM focused more on administration, building local delivery and storage capacities, assuring consistent pipelines, and compliance of governments with supplemental provision of funds and/or local commodities. Few evaluations centered around nutritional impact or improvement. One study looked at the biological quality of proteins and growth patterns on a weaning mixture (LECHE-Alim) comprised of toasted wheat flour, NFDM, fish flour and sunflower meal versus a diet of dried skim milk⁴. Taste acceptability for NFDM was preferred by infants 3 months and 12 months compared to the weaning mixture. There was virtually no difference in weight gain after 12 months on the experiment, by children receiving Leche-Alim gained and those on DSM alone, however there was a significant (P 0.001) change in increase in height for children given Leche-Alim vs. the NFDM recipients.

Supplementary Feeding Programs

Supplementary feeding programs (SFP) are found in both development and emergency settings. Thousands of SFP have been undertaken in as many geographical locations over the past 4–5 decades. Examples include:

- In India in areas where milk production is abundant, milk and milk products have traditionally been consumed by almost all sectors of the population. Supplementary feeding programs for infants and expectant mothers and school children, have always included milk powder.⁵
- PVOs have supported institutions who care for orphans, malnourished and handicapped with take-home monthly rations, comprised of oil, rice, and milk and other basic staples. Milk is no longer distributed directly in this manner except in cultures where milk is traditionally consumed.
- During the severe drought in Sahelian countries during 1984-5, cooperating sponsors distributed NFDM and other commodities in numerous countries. In Mauritania, cereal, milk powder and butter oil were distributed to beneficiaries (pregnant, lactating and young children)⁶.
- In Russia, during a time of food crisis (1993), dry skim milk was distributed enabling beneficiaries to use it or sell it for other commodities they needed.⁷

Therapeutic Feeding Programs (TFP)

Dry milk powders can be used in a number of products distributed to severely malnourished people: high-energy milks, biscuits (e.g., F75 and BP100), and blended foods. However, since therapeutic feeding programs (TFPs) are expensive to run and serve small numbers of people, only a small tonnage of DSM can be used annually as ingredients in these products. Challenges for these programs include the need to provide 24-hour care to recipients, maintain clients, and treat multiple diseases, especially diarrheal disease. Examples of TFP programs are listed below.

- In Ethiopia TFP conducted by SCF/US (1999–2000) used high-protein biscuits, in addition to other therapeutic foods to rehabilitate malnourished mothers and young children in Gode District. Most TFP in Ethiopia during the 1999–2000 crisis showed nutritional improvement in their target populations.⁸
- Another Ethiopian operation in three sites run by Action Contre La Faim, vulnerable groups, including TB patients received F75, F100 and UNIMIX under strictly controlled conditions. (July 2000).

School Feeding

USAID has supported school feeding programs in dozens of countries worldwide. In 2000, \$300 million was proposed for school feeding in developing countries. Reconstituted milk or milk blended with other foods is consumed at school by older children, minimizing potential discouragement of breastfeeding. The aim of school feeding is usually twofold: to improve nutritional status of school children and provide an incentive to attend school, especially for girls. Use of DSM is usually controlled and prepared to specifications.

Certain issues must be addressed in school feeding, such as the necessary infrastructure to carry out a program effectively the governmental, agricultural, and educational groundwork, and safeguards against fraud and abuse to ensure that the resources committed to the project are used as intended. School feeding can have other benefits for U.S. commerce and capacity building of educational systems in the countries where they are implemented. School feeding experience includes the following examples:

- In a testimony to a recent Senate Subcommittee hearing on the impact of excluding surplus commodities from the United States response to global hunger,⁹ Senator James McGovern cited the positive examples of Indonesia's school feeding programs. He noted that the four private voluntary organizations (PVOs)¹⁰ donating DSM, fortified biscuits, and noodles were also expanding participation of groups such as parent-teacher association, teachers, and local authorities in the program's implementation. Building local capacity and jobs, generating income, and recycling milk packages were other spin-offs of the program. Use of DSM in Indonesia led to the first commercial sales of U.S. milk by two dairy processors in the school milk programs.
- In Bangladesh, Indonesia, and Vietnam, Land O'Lakes sells commodities donated by the U.S. Department of Agriculture 416 (B), generating local currency sales proceeds. These funds are used to support programs that distribute milk, fortified biscuits, and other nutritious and affordable school feeding products to a large number of school children in each country. This effort aims to improve child nutrition as well as school attendance and performance. The entire process is monitored by the cooperating sponsor, ensuring that the donated food is properly used.
- In South Africa, the dairy industry and schools are actively trying to promote drinking milk in schools since it is on the decline¹¹.

Monetized Aid

Bellmon analyses provide information on market conditions and prices to determine whether a food aid commodity will disrupt local and or national markets.

Various sources indicate that NFDM is considered a preferred commodity by developing countries, although pipeline ruptures have been problematic for program stability. In the early 1960 some countries depended on a constant flow of NFDM stocks, which dried up. To compensate, blended commodities such as CSB were developed and substituted for the NFDM.¹² Examples of successful monetization projects follow.

- In Rwanda, a country with limited dairy production and no powdered milk production and an importer of milk, including powdered milk for domestic sale, ACDI/VOCA monetized Food For Progress 416 (B) NFDM in 2001.¹³ Skimmed milk is primarily consumed by schools, orphanages, restaurants, bakeries, and rural populations in Rwanda and is less expensive than full-fat cream and fresh milk. Outbreaks of hoof and mouth disease have resulted in a ban of milk sales in some areas. Up to 25% of dairy herds have been lost. Milk prices are seasonal, with higher prices reducing demand and making competitively priced imports more attractive. The demand for NFDM is high, and proceeds of the ACDI/VOCA project will fund natural resource management projects to increase agricultural production and restore and protect crops and agribusiness development to increase income generation in project areas.
- In Zaire, corn and NFDM were monetized for operation of programs to monitor growth and rehabilitate malnourished children under age five, and to support local weaning food production (using Title II milled corn)¹⁴. Unique during its time (1987), its' focus was on sustainable development -- the training of the Ministry of Health and private sector improvement (local weaning food company). Issues with monetization revolved primarily around devaluation of the Zaire currency and the challenges it proposed to complete project activities as planned.
- In Ecuador, a cooperating sponsor sold NFDM at local market price (est. \$1,600 per MT) to pasteurizing plants and adjusting the selling price to millers¹⁵. NFDM was distributed through sales to pasteurizing plants, by sales of dairy products which then sold dairy products such as yogurt, ice cream and pastries in low income areas. Proposed use of funds were for agricultural and dairy production development benefiting the needy, including loans to benefit dairy farmers (e.g. for purchasing essential dairy equipment and refrigerated trucks).

Animal Replacement Feeding

Non-fat dry milk is considered a high-quality protein source that can be used as a feed supplement for cattle and other herds. The majority of livestock in the developing countries depends on straw or dry grass for a substantial period of each year. In addition, competition with humans for the available milk means that young animals are often denied their full requisite for milk (the best balanced supplementary feed)¹⁶. In areas where pastoralists provide milk to support themselves as well as their young livestock, there are opportunities for replacement

feeding of animals with milk powders. Poorer households with fewer milk cattle use their milk cows more intensively for their own needs, leaving less milk for calves. Competition for milk could increase if pastoralists were able to market and sell dairy products. Sale of dairy products, an economic opportunity directed to women in communities close to small markets, could be facilitated as part of a rural development strategy.¹⁷

In the United States aid in the form of animal feed (including non-fat dry milk) is offered in 2002 to help cow and calf operators in four Midwestern states to compensate for animal losses from adverse weather.¹⁸

One example of this kind of program includes:

- In Ecuador, use of Title II non-fat dry milk to produce a formula, called a "calf milk replacer," was sold to dairy producers. Dairy producers will feed the calf milk replacer to their calves, rather than allowing them to nurse milk from their mothers, and the milk that from the mother cows will then be available for sale to consumers. Higher dairy incomes were projected, because producers will sell the fresh milk for more than they pay for the calf milk replacer. Ecuador's Regional Agricultural Services Cooperative (COORSA) worked with Land O'Lakes, Inc. to establish a plant for manufacturing calf milk replacer and to promote an improved complete calf feeding program¹⁹.

Promotion of Host Country Local Dairy Industry

There is a strong nutritional case for dairy development (and food aid imports) in countries where caloric intake is below FAO recommendations. Studies suggest that increased milk consumption could contribute significantly to improving overall nutrition and nutrition of vulnerable populations such as pregnant and lactating mothers and young children.²⁰ Pastoralists and agropastoralists stand to gain from dairy development, as milk supply varies with climate and disease factors. A 1987 study of the potential for dairy initiatives in Sudan found that the diets of cereal and starchy foods consumed by non-pastoralists would benefit from a strategy to develop sale of highly nutritious dairy products sold by pastoralists. Milk released from the pastoral diet can be processed and sold or exchanged for grains, as is frequently done between cattle-owning and non cattle-owning households in agropastoral and mixed farming communities.²¹

Monetization of Title II commodities is being used by most PVOs to fund a wide variety of development projects, including nutrition and mother and child health projects. More recently, NGOs have helped develop microenterprises and small industry through monetized funds.

FAO promotes dairy development through various agencies, including WFP.²² These projects have integrated the following elements:

- Promotion of dairy policies (especially prices and imports) aimed at smallholder production
- Assistance to increase farmer participation in all aspects of the dairy process: milk collection, processing, and marketing systems
- Establishment of training activities, information exchange, and an internal framework for technical cooperation with other countries

Promotion of small-scale dairy industry has numerous potential benefits since marketing can be more efficient, supplies better controlled, more people participate in and benefit from the market, labor allows for secondary employment and the environmental and ethical advantage over larger-scale manufacturing could be exploited for added value.

Land-O-Lakes' promotion of the dairy industry has included the following initiatives:

- **Honduran Dairy Enterprise Initiative.** This project developed with Hurricane Mitch reconstruction funds for short-term assistance in the dairy sector successfully revitalized the Honduran dairy industry. The Initiative for Honduras and Central America will expand producer-owned collection centers and breeding services, create a stronger demand for dairy products, improve farmer incomes by improving milk quality, and link U.S. dairy businesses to provide services, equipment, and products to develop opportunities resulting from the growth of the dairy sectors. Efforts will be combined, with an emphasis on increased profitability and modernization of small processors through wider access to technology, new product development, national “drink milk” campaigns, and expanded domestic and international marketing. Campaign awareness messages will include HIV/AIDS prevention and promotion of the important immune-enhancing role of dairy products. A Central America—U.S. Dairy Links Center will strengthen and engage the U.S. industry by using Honduras as a regional base for U.S. dairy technology diffusion and sale of U.S. inputs such as semen and quality feeds and components, whey, non-fat dry milk, and specialty dairy products.²³
- **Dairy Development for Kenya.** This project aims to build a strong private, commercially-oriented dairy sector, take better quality and less expensive dairy products to the market, and improve the health of Kenya's population through increased consumption of dairy products. The overall objective is to increase efficiency in production, processing, and distribution so that producers, processors, and distributors increase their incomes and deliver lower cost, better quality dairy products to the market. This will be accomplished through cooperative development, value-adding, marketing, and new product development. In addition, collaborative and joint activities with project partners will be coordinated to extend cost-effective assistance to more stakeholders.

SECTION II. ABUSE OF MILK POWDER AND SELECT ISSUES IN HUMANITARIAN OPERATIONS

Misuse and abuses of distribution of milk powders for humanitarian programs have been well documented for over three decades. Food aid commodities in general have been criticized for negatively affecting local and regional markets, causing disincentives for farmers to grow or attend to crops, failing to have their intended impact, and having multiple unintended consequences. In humanitarian infant and child feeding programs, milk powder distribution and use involve their own set of issues. This section briefly addresses these issues, as well as challenges that have arisen with the burgeoning HIV/AIDS crisis worldwide and with lactose intolerance to reconstituted milk powders.

Infant and Child Feeding

Abuses of free milk distribution for child feeding have been widely reported and documented. Berg (1973) notes that free distribution of DSM targeted to infants must not be allowed to act as a disincentive to breastfeeding. The author cites a decline in breastfeeding and a possibly related increase in infant mortality in Chile when the government increased 12-fold the free distribution of DSM.²⁴ More recently, advocacy groups such as the International Breastfeeding Action Network (IBFAN) and World Alliance for Breastfeeding Action (WABA) have detailed problems encountered with breastmilk substitutes (BMS) on their websites.

A 2001 Catholic Relief Services (CRS) policy statement²⁵ on the use of milk powders summarizes the main risks associated with the use of milk products, BMS, and infant feeding equipment in developing countries:

- Creation of breeding grounds for harmful bacterial growth
- Waterborne illness from using contaminated water to mix milk products
- Digestive problems and malnutrition from inappropriate reconstitution and mixing of milk products, i.e., digestive problems for infants from milk products that are too concentrated and inadequate nutrition from milk that is over diluted
- Security threat to beneficiaries and sponsoring agencies because the high value of milk products increases the risk of theft, diversion, and resale
- Diarrhea and other diseases associated with milk products that are not refrigerated or are inappropriately handled
- Dependency on BMS and subsequent loss of mothers' milk production leading to food insecurity, malnutrition, and infant death if supply is disrupted
- Illness in people who have lost essential amino acids to digest lactose (mal-absorbers)
- Reduced caregiver attention, interference with suckling, and discouragement of breastfeeding as a result of the distribution of bottles, teats, cups with lids, and other infant feeding aids. Decrease in the frequency of breastfeeding can increase the probability of menstruation, ovulation, and pregnancy within 6 months of the previous birth and the risk of morbidity and mortality for both children and mothers.

Poor hygiene, limited water and fuel, and overcrowding in emergency situations intensify the health risks (diarrhea, morbidity, and mortality) associated with DSM.

The abuses associated with aid distribution and flow that came to the fore in the Balkan crisis²⁶²⁷ are relevant to a discussion of DSM. These abuses included the arrival of unsolicited donations

by road and air without concrete manifests, recording of tonnage of aid only, untargeted distributions where records were not kept and food aid was based on stocks rather than need, a lack of inter-agency coordination on policies and education to protect breastfeeding early enough in the response to prevent damage, and the lack of a system to monitor the WFP recommendation not to distribute dried milk powder as a general ration.

The following World Health Assembly resolutions concerning emergencies were undermined during the Balkan crisis:

Resolution 1994: "In emergency relief operations, breastfeeding for infants should be protected, promoted and supported. Any donated supplies of breastmilk substitutes, or other products covered by the scope of the Code, may be given only under strict conditions: if the infant has to be fed with breastmilk substitutes, the supply is continued for as long as the infant concerned needs it, and the supply is not used as a sales inducement."

Resolution 1996: "Member states are urged to ensure that complementary foods are not marketed for or used in ways that undermine exclusive and sustained breastfeeding."

Further details about violations of the International Code of Marketing of Breastmilk Substitutes are documented in the Save the Children Fund and Institute for Child Health's November 1999 "Meeting the Nutritional needs of infants during emergencies: recent experiences and dilemmas."

Market Disincentives

Both positive and negative arguments have been made for the impact on market incentives of food aid to developing countries. Although no specific example of depressed dairy prices was found during this research, highlights from more general discussions on food aid's impact on labor and market are mentioned in the literature.

Food aid has been criticized for acting as a disincentive to local agricultural production, creating a dependency mentality, displacing commercial demand, and—in the case of food-for-work or partial wage payments—undercutting normal employment and wage pricing. However, studies have also shown that when administered properly, food aid combined with joint provision of financial aid can promote self-sufficiency, may not necessarily lower production, and can make a significant impact on employment when funds for wages are inadequate.²⁸

Critics of food aid in emergencies argue that poor internal transport, inadequate storage capacity, and massive theft in some recipient populations have caused chaos and long-term damage to local markets. This damage may be exacerbated by longer-term development aid.²⁹

During the 1970s and 1980s the United States and European Union provided African countries with the bulk of dried milk donations and subsidies. At that time it was apparent that sub-Saharan Africa could not easily meet its demand from domestic supplies and had to rely on imports varying from 13% in East Africa to between 46% and 57% in West Africa.³⁰ A number of countries were dependent on these imports to meet caloric nutritional needs. A 1985 dairy policy study on sub-Saharan countries suggested that the depressed world prices for milk at the time stimulated Africa's milk demand and dairy imports but hampered the continent's dairy business growth.³¹ The study concluded that dairy imports (largely in the form of food aid) discouraged milk production, especially in countries where there was direct competition between

production of imported milk powder and reconstituted milk and local production of fresh milk. However, the authors noted that with some policy changes and reduction in tariffs and other trade measures, dairy development objectives could be met without creating dependency on imports. An updated analysis of African dairy production and milk imports and exports is needed to assess the current situation. Presently, only a few African countries (Côte d'Ivoire, Ghana, Mali, Niger, Nigeria, Senegal, and Togo) countries are current milk powder exporters.

Opportunities to advance dairy industries in many parts of the world exist. A joint presentation report by the International Food Policy Research Institute (IFPRI), International Livestock Research Institute (ILRI), and FAO³² projects that from the period 1993 to 2020 milk consumption for sub-Saharan Africa will double, and nearly double in Latin America, and for India, they project milk consumption will triple.

Special Issues

HIV/AIDS and the Use of Replacement Feeding

The use of DSM in any form (including blended foods) in feeding programs aimed at HIV-infected mothers and their infants poses a difficult question. Research on replacement feeding³³ in developing countries suggests that a number of conditions should be met to reduce the risk of bacterial contamination and improper dilution of milk powders. The fact that many of these conditions cannot be met in lesser developed countries suggests that replacement feeding is associated with many perils in such countries, even without the complication of HIV. The risk of dying from infectious diseases in the first 2 months of life is 6 times greater in non-breastfed infants than in exclusively breastfed infants, according to a pooled analysis of studies from Brazil, the Gambia, Ghana, Pakistan, the Philippines and Senegal.³⁴

In the past decade, evidence has accumulated that HIV can be transmitted through breastmilk for women who already have the virus. The current estimate of the rate of infection via this route is 15% (WHO and UNAIDS 1999), higher if HIV is contracted while a mother is breastfeeding.³⁵ The majority of infants who contract HIV—approximately two-thirds—become infected via the placenta or during delivery, and possibly one-third through breastfeeding.³⁶

In 1997 UNAIDS, UNICEF, and WHO issued a joint policy statement on HIV and infant feeding that supported breastfeeding, counseling on the virus and its risks, and empowering women to make informed choices on how to best feed their infants. Testing for HIV status is a critical factor. In most developing countries 90% or more of mothers are unaware of their HIV status because testing is either unavailable, too costly, or associated with such negative stigma that people are reluctant to take advantage of this service. Feeding options for HIV-positive women include exclusive breastfeeding (which may lessen the risk of transmission), expressing and heat treating breastmilk, replacement feeding with commercial infant formula or home-prepared formula made from animal milks, expressing and heat treating breastmilk, and wet nursing.³⁷

While research on this subject is still evolving, the 1998 UN guidelines for infant feeding in areas affected by HIV summarize the central objective: to prevent vertical transmission of HIV while continuing to protect, promote, and support breastfeeding.³⁸ Replacement feeding with commercial formula or home-prepared formula is listed as an alternative option to the recommended short-term (3–6 month) exclusive breastfeeding. The UN guidelines list

commercial infant formulas, home-prepared formulas, modified animal milks, dried milk powder, evaporated milk, and unmodified cow's milk as alternative replacement foods. Program developers and managers who are contemplating the promotion of replacement feeding need to consider such factors as infants' nutritional requirements, the risks of contaminated water and death from diarrhea when formulas are used, the cost of artificial feeding, losses in fertility protection, the loss of optimal mother-infant bonding, and the social and cultural patterns of breastfeeding.

Controversy remains over best practices for HIV-infected mothers who breastfeed. An important issue is the adherence of developing countries to the 1981 WHO Code for Marketing of Breast-milk Substitutes. Some organizations working to protect breastfeeding feel that the UN recommendation that national authorities and governments negotiate with the formula industry to make breastmilk substitutes available at subsidized costs or free of charge is controversial where artificial feeding may increase mortality, posing risks greater than that presented by HIV. In June 1998 WABA issued a letter to UNAIDS, UNICEF and WHO expressing its concern over the "over" stressing of formula or replacement feeding and the associated threat to breastfeeding. Another valid concern raised is the fact that in countries where the government and health infrastructure are weak and formula is expensive, this policy may encourage an HIV-negative mother or one who does not know her HIV status to use replacement foods for fear of being stigmatized as HIV-positive.

WHO states that replacement feeding should be "accessible, affordable, reliable, feasible, and safe." Many mothers live in situations where replacement feeding with fortified or blended dried milk powders is complicated by the lack of clean water, fuel, sterilized utensils, a steady pipeline of the commodities, correct dilution of the milk powders, adequate infant feeding counseling, or health care. Another concern in countries where breastfeeding is the cultural norm is the stigma associated with not breastfeeding because of the association of replacement feeding with HIV. Provision of infant formula to HIV-positive women by health facilities and donor agencies has been known to have a spillover effect on non-HIV-positive women.

Lactose Intolerance

Lactose intolerance is the presence of gastrointestinal symptoms (abdominal cramping, nausea, flatulence, and diarrhea) resulting from the incomplete digestion of lactose, the primary sugar in milk. The condition is caused by insufficient activity of the lactase enzyme and influenced by the amount of lactose consumed and the combination of foods in the diet. Low enzyme activity may be temporary, resulting from damage to the lining of the small intestine by infectious diseases such as diarrhea. More permanent lactose intolerance results from either a (rare) congenital condition or a genetic inability to digest lactose that decreases enzyme activity.

Lactose intolerance levels are very high in Africa and Asia and in indigenous populations of the Americas, where the traditional food culture included little consumption of high-lactose milk or converted lactose into lactic acid in yogurt and some cheeses through fermentation. Lactase activity declines after weaning in most racial and ethnic groups by the age of 3–5 years, when children consume a variety of foods.

The minimum amount of lactose intake to cause gastrointestinal symptoms varies among individuals and according to dietary factors and types of food. Lactose-intolerant people are, for example, more sensitive to lactose consumed as fluid milk than to lactose consumed as part of a meal. Some lactose-intolerant adults experience gastrointestinal symptoms after consuming as little as 12 grams of lactose (the equivalent of one cup of milk). The frequency and severity of gastrointestinal symptoms increase with lactose intake in excess of 12 grams³⁹.

The American Academy of Pediatrics has a policy statement on the *Practical Significance of Lactose Intolerance in Children*⁴⁰. Its review of the literature on lactose intolerance in malnutrition and refeeding of young children in developing countries, the academy found that in supplemental milk feeding programs, favorable outcomes were reported for most of the children and that children refed on cow's milk did not have more diarrhea than those fed on formulas with other sugars (e.g. glucose, sucrose, etc), and that diarrhea was usually self-limiting, except in severe cases.

In general, lactose intolerance is unlikely to result from consumption of the fortified cereal milk blend commodities available through the Title II program. The uncooked cereal milk blends contain about 8 grams of lactose per 100 grams of the cereal blend. A meal based on 150 grams of dry blended cereal would therefore provide 12 grams of lactose, an intake tolerated by most individuals. Moreover, the lactose contained in the cereal milk blends is consumed as part of a meal and therefore more easily digested.

Although 70% of the world's population digests lactose poorly, mal-digesters who believe they are lactose intolerant can consume dairy products such as yogurt and lactose-hydrolyzed milk.⁴¹ Alternative uses of DSM—in the form of yogurt, which can be more easily digested even by lactose-intolerant people with hereditary or acquired deficiencies,⁴² with chocolate added, or consumed in small servings with other foods, or in fermented foods—can help reduce symptoms of lactose intolerance.

Other Nutritional Issues

Two additional nutritional issues emerge from the literature on milk powder distribution and use: the low fat and iron content of non-fat dried skim milk and fortification of food commodities. The second was discussed extensively in the 1970s and 1980s. Fortification requirements were established by FAO and WHO in 1992 for relief commodities and donors. Involved organizations must ensure that the nutrient content of food used in emergency food aid meets the nutritional requirements through either fortification or supplementation.⁴³ Most donors of food commodities fortify foods or blend commodities to make higher-quality protein food blends and more nutritious foods.

The American Academy of Pediatrics recommends that infants weaned before 12 months of age receive iron-fortified formula but not cow's milk.⁴⁴ Other research has found that early introduction of cow's milk may stimulate allergies, that cow's milk is low in iron, that iron deficiency is more likely on a dairy-rich diet, and that NFDM is low in fat necessary for infants in developing countries.

SECTION III. DONOR, INTERNATIONAL, AND NONGOVERNMENTAL ORGANIZATION POLICIES ON USE OF MILK POWDERS

Donor and agency policies on the use of milk powders⁴⁵ arose over the past 2 decades as a result of field experience, productive uses of food aid commodities, and misuses in distribution and use of aid. Distribution and use of milk powders necessitated specific review and attention because their misuse may have contributed to increased morbidity and mortality in young children and morbidity in lactose-intolerant adults. In the 1970's and 1980s international attention focused on multinational companies that distributed infant formula in developing countries. As a result of the multiple problems associated with free formula and the threat to safer and healthier breastfeeding and intense lobbying by Odfam and other organizations, WHO endorsed the International Code for Marketing of Breast-milk Substitutes in 1981. Advocacy groups arose to monitor adherence to the Code and support breastfeeding. In addition, most international organizations and agencies began to develop their own policies on use of dried milk products in humanitarian operations. These development, emergency, and monetization policies are addressed in this section.

Donors

The current policy of **USAID** involves guidelines for development and relief operations. Food for Peace (FFP) has policies on the use of DSM in three areas: monetization, supplementary feeding, and therapeutic feeding programs. A fiscal year 03 policy letter on the use of NFDM states that a cooperating sponsor may not sell NFDM to a manufacturer or marketer of BMS if the manufacturer has facilities in the program country and that this stipulation must be in writing from the buyer of the milk commodity. The Field Operation Guide (FOG) of the Office for Foreign Disaster Assistance (OFDA) reiterates the challenge of hygienic preparation of milk powders, proper dilution, and microbial and insect contamination in emergencies. For these reasons USAID does not recommend milk distribution as part of general ration, except where milk is used as the normal source of protein for the displace population (FOG 3.0 III-46). The appropriateness of milk distribution must be ascertained prior to use. For use in SFP and TFP, DSM must be administered under supervision and in controlled, hygienic environments and can be used to improve protein content of cereal mixes.

The Office of Humanitarian Operations (ECHO) of the **European Commission** (EC) has a policy paper that notes its distribution of dried milk powders but does not detail specific use in humanitarian operations. While the EU was a key donor of milk powders until the early 1980s, its donations have since declined. There was a policy shift away from the use of food aid as a conduit for surplus commodity disposal toward its use in sustainable development programs. The EU was not an initial sponsor of the Infant and Young Child Feeding in Emergencies Guidelines of November 2001. Policies of other countries that donate milk for humanitarian operations were not available or located.

Euronaid's Current Policy on Food Aid Commodities (2001) states that food aid in kind provided under the Food Aid/Food Security regulation and channeled mainly through direct governmental programs, EuronAid NGOs and WFP will be mobilized 1) in

complementarity with ECH) to provide relief in cases of major and protracted crisis, 2) as a contribution to strategic reserves and safety nets, and 3) to link relief, rehabilitation, and development.⁴⁶ Food aid in-kind has clearly been dissociated from agricultural surplus disposal and has become an instrument of development assistance. Regarding external coherence, the concerned Commission services have made considerable progress, both in the context of the International Food Aid Convention and the WTO negotiation process, in moving toward tighter rules and greater transparency in the provision of food aid to developing countries.

The EU policy stipulates that food aid should be provided as a grant but be limited to emergency and humanitarian interventions; situations linking relief, rehabilitation and development; and as an element of safety net strategies for particularly vulnerable sections of the population. The policy further stipulates that to respect consumption patterns and avoid market distortion, food aid should only be provided at the request of the beneficiary countries specifying their particular needs, and that whenever possible, donors should give preference to local or regional purchases.

UN Organizations

Almost all policies on the use of dried milk products stem from the 1981 **WHO** International Code of Marketing of Breastmilk Substitutes. In brief, the Code includes a series of articles covering possible avenues that companies and others could use to market breastmilk substitutes. These articles stipulate that:

- No donations of free or subsidized supplies of breastmilk substitutes, bottles, or teats should be given to any part of the health care system. Donations may be made to institutions outside the health care system for infants who have to be fed on breastmilk substitutes, and when these are distributed outside the institution supplies should be continued for as long as the infants concerned need them.
- No facility of a health care system should be used for the purpose of promoting infant formula or other products covered by the Code, including the display of these products or posters or placards concerning these products.
- Breastmilk substitutes, bottles, and teats should only be given if all the following conditions apply:
 - Infants are fed on substitutes according to agreed criteria,
 - The supply is continued for as long as the infants concerned need it,
 - The supply is not used as a sales inducement, and
 - Manufacturers and distributors of infant formula responsible for marketing the products ensure that certain labeling requirements are met, e.g., that the label is in an appropriate language and includes instructions for appropriate preparation and does not include any picture or text which idealizes the use of infant formula (Article 9, The Code).⁴⁷

The 47th World Health Assembly adapted a further resolution (WHA Resolution 47.5, 1994) to the 1981 Code that was specifically aimed at emergencies: “To exercise extreme caution when planning, implementing, or supporting emergency relief operations, by protecting, promoting, and supporting breastfeeding for infants.”

The most recent WHO document to address the use of breastmilk substitutes in emergency settings is the November 2001 “Infant and Young Child Feeding in Emergencies” This document pulls together the main issues reflected by international agencies and nongovernmental groups in many of their individual policies and guidelines over the past 2 decades. While this guidance does not specify non-emergency humanitarian situations, many of the points would be valid where there are infant and child feeding programs.

WFP has the most extensive guidelines for the use of milk powders, while the SPHERE Project sets minimum standards for their use in any humanitarian operation. Universal policy norms include the following:

- Breastfeeding should be promoted and supported to every extent possible.
- No free or subsidized milk powder should be distributed as a ration to the general population (except in cultures with traditional milk consumption).
- Dried milk products should be prepared under strict supervision in hygienic environments.
- Nutrition education should be provided in a controlled environment.
- Dried milk products should be fortified with vitamin A.
- When milk powders are used, they should be delivered on the spot in supervised settings.
- Dried milk powders (and biscuits) should not be distributed to infants under 6 months old.

In terms of emergency operations, violations of the 1981 International Code of Marketing of Breastmilk Substitutes were seen in the 1999 Balkan crisis. A series of articles, research efforts, and meetings during and after the crisis highlighted the continual problem of relief agencies not complying with previous guidelines and policies on this topic.⁴⁸ Annex 1 list a selection of 20 guidelines and policy documents drafted by international organizations and agencies since the 1981 Code.

WFP operates in development and emergency settings worldwide and has classified and distributed three types of milk products: DSE, or dried skim milk enriched; DSP, or dried skim milk plain (not enriched with vitamin A); and DWM, or dried whole milk with fat and vitamin A.. The most recent primary donors of dried milk products to WFP are the United States (>90%) and the Swiss Aid Agency. During the 1990s small-scale megatons (MT) of dried milk were distributed compared with distribution from the 1950s through the 1980s, when the United States had an abundant milk supply.

Uses and abuses of dried skim milk in humanitarian operations necessitated policy directives for donors. A 1990 WFP directive includes the following key policy points:

- DSE and DSP are not substitutes for fresh milk and should not be reconstituted as a beverage, but should be consumed only with other foods
- Dried milk products should not be reconstituted in feeding bottles for children of any age. This must be strictly guarded against.
- In non-dairy development projects, dried milk products must be fortified with vitamin A.
- In non-dairy development projects, dried milk products should be used in on-site feeding situations and only when the foods are consumed on the spot [and] prepared under strict hygienic conditions complemented with nutrition education, demonstrations, and instructions for use of the product.
- The exceptions to the “on-site consumption” policy are when milk is part of a traditional diet and WFP has assurance of its proper use (i.e., it is never a breastmilk substitute, the water is boiled water; and the milk product is an ingredient or used with other foods such as tea, coffee, or yogurt).

The WFP policy also stipulates that when it is important to increase dietary protein, blended foods can replace dried milk products.⁴⁹ In 2000 WFP issued a further update of the guidelines for the use of milk powder in emergency settings.⁵⁰ This focused mainly on use in emergency feeding, use as a breastmilk substitute, and storage. Because the danger of using dried milk as a breastmilk substitute, WFP recommends that dried milk powder (DMP) NOT be distributed in emergency-affected populations as part of a general dry ration, citing increased risks of microbial contamination in emergency settings. The guidelines further state that DMP can be safely used:

- As part of High Energy Milk (HEM) or porridge when prepared under strict control, supervised in hygienic conditions for on-the-spot consumption (such as supplementary and therapeutic feeding programs).
- As an ingredient in porridge pre-mix, prepared from cereal flour, oil, sugar and DSM
- As an ingredient in the local production of processed foods (e.g., noodles, blended foods, or biscuits)

WFP policy also holds that under certain circumstances when deemed essential, where an emergency population is accustomed to bottle feeding, DMP can be used as a BMS. This should only be done when mothers in need of BMS have been identified by health workers through specifically designed and supervised programs, and the DMP is never distributed through the general ration program. WFP states its support for the WHO policy on safe and appropriate infant and child feeding, protecting, promoting and supporting breastfeeding, and timely and correct use of complementary foods. Further WFP recommendations concern storage guidelines to reduce microbial contamination, a major problem in using DMP. During storage WFP recommends:

- Keeping the product dry and clean
- Handling bags carefully so as to not damage packaging
- Keeping the products cool and away from direct sunlight
- Using maximum safe storage times ranging from 6 months to 2 years, depending on climates

A 1989–1990 policy issued by **UNHCR** on the Acceptable Distribution and Use of Milk Products in Feeding Programmes and Refugee Settings was superseded by the 2001 Infant and Young Child Feeding in Emergencies, Interagency Operational Guidance for Emergency Relief staff and Program Managers. UNHCR emphasizes points similar to those in the WFP’s policy: Strict control over distribution, hygienic conditions, supervision, on-the-spot consumption, fortification with vitamin A, discouragement of BMS unless absolutely necessary, and discouragement of the use and distribution of bottles and teats in refugee settings. An exception to dry distribution is when milk is part of the traditional diet. Further details of the use of milk products (e.g., distribution, use, and utility) is described in UNHCR’s 1997 Handbook on Emergencies. UNHCR also endorses the SPHERE guidelines for use of milk products.

UNICEF is part of the UN Joint Statement “Policy on Infant Feeding in the Balkans” and an endorser of the 2001 Operational Guidance for Emergency Relief Staff and Program Managers “Infant and Young Child Feeding in Emergencies” mentioned below. Additionally, UNICEF has 1998 Memorandum of Understanding in Emergency and Rehabilitation Interventions with WFP and a 1986 field manual on “Assisting in Emergencies.”

Joint International Policy Statements on Infant Feeding and Infant Formula

In November 2001 an operational guidance for **emergency** programs entitled “**Infant and Young Child Feeding in Emergencies**” was issued and endorsed by 30 international agencies, NGOs and other organizations.⁵¹ This interagency working group arose out of the misuse of BMS in Kosovo. For all the agencies who endorsed this guidance, the points below supersede all other policies on infant feeding and use of BMS as they relate to emergencies.⁵²

1. Every agency should develop or endorse a policy relating to infant and young child feeding in emergencies (that should be institutionalized); the policy should be widely disseminated to all staff and agency procedures adapted accordingly (Section 1).
2. Agencies need to ensure the training and orientation of their technical and non-technical staff, using available training materials (Section 2).
3. There must be a designated body responsible for co-ordination of infant and young child feeding for each emergency; that body must be resourced and supported in order to carry out specific tasks (Section 3).
4. Key information on infant and young child feeding needs to be integrated into routine rapid assessment procedures; if necessary, more systematic assessment using recommended methodologies can be conducted (Section 4).
5. Simple measures should be put in place to ensure the needs of mothers and infants are addressed in the early stages of an emergency (Section 5).

6. Breastfeeding and infant and young child feeding support should be integrated into other services for mothers, infants, and young children (Section 5).
7. Foods suitable to meet the nutrient needs of older infants and young children must be included in the general ration for food aid dependent populations (Section 5).
8. Donations of breast-milk substitutes, bottles and teats should be refused in emergency situations (Section 6).
9. Any well-meant but ill-advised donations should be under the control of a single designated agency (Section 6).
10. Breast-milk substitutes, other milks, bottles or teats must never be included in a general ration distribution; these products must only be distributed according to recognized strict criteria and only provided to mothers or caregivers for those infants who need them (Section 6).

During the Kosovo crisis in 1999–2000, significant controversy arose over the use of milk products for internally displaced persons and refugees. In June 1999, UNHCR, UNICEF, WFP, and WHO endorsed a **Joint Policy Statement (JPS) on Infant feeding for the Balkan Region**. The summary recommendations of this policy statement are as follows:

- Exclusive breastfeeding is protected, supported and promoted for all infants until about 6 months and continued breastfeeding through the second year of life.
- Donations of infant formula displaying brand names are not accepted.
- In very exceptional circumstances infant formula provided in generic, non-brand formula might be used.
- If artificial feeding is required as a last resort, cups and not feeding bottles should be used.
- Local produce (e.g., fruit and vegetables) and basic food aid commodities (e.g., rice, beans and lentils) are recommended as complementary infant foods. The use of specialized manufactured complementary products, which may create a dependency, is discouraged.
- (In reference to the distribution of supplementary food commodities such as dried milk powder and biscuits to children ages 0–5 years): Dried milk must not be used to feed infants.
- An education component should be an integral part of every project where supplementary food commodities (especially infant formula and commercial complementary foods) are distributed.

The JPS also endorsed the International Code of Marketing of Breastmilk Substitutes and subsequent relevant resolutions of the World Health Assembly setting out the responsibilities of national governments, companies, health workers, and concerned organizations to ensure appropriate practice in the marketing of breastmilk substitutes, feeding bottles and teats. This endorsement includes the statement, “The Code has the following aim: *to contribute to the provision of safe and adequate nutrition for infants by the protection and promotion of breastfeeding and by ensuring the proper use of breastmilk*

substitutes when these are necessary on the basis of adequate information and through appropriate marketing and distribution.⁵³”

International Organizations

The 1998 **SPHERE Project** Humanitarian Charter and Minimum Standards in Disaster Response, Chapters 3 and 4, refers to the use of milk products.⁵⁴ These standards specify that under certain conditions BMS may be provided. For example, when some mothers are not breastfeeding, formulas may be provided when prepared under hygienic conditions, in controlled environments where supplies can be guaranteed. Distribution of such products is conditional upon intensive nutrition education and must adhere to the WHO International Code of Marketing of Breastmilk Substitutes. The SPHERE charter (page 29) also details guidelines for food acceptability:

- In populations where BMS are a habitual practice, and where commercial products are given to children as complementary foods, it may be necessary to support mothers in adapting new techniques during an emergency period, such as promoting breastfeeding; however, promotion of changing behaviors in an emergency is not an ideal time.
- Powdered or modified milks that are not part of blended foods should not be included in the free or subsidized general food/ration distribution; of particular concern are inappropriate dilution, germ contamination, and/or lactose intolerance.

The SPHERE Project also mentions the critical issue of HIV transmission through breastmilk, noting that where sanitation is inadequate or families have poor resources, death from diarrhea is 14 times higher in infants who are artificially fed than in those who are breastfed and cautioning agencies to carefully weigh risks in emergency situations.

Chapter 4 on the SPHERE manual on minimum standards in food aid outlines the complementary factors to consider in use of relief commodities (including milk powders). These factors include 1) analysis of the population’s need and cultural habits, 2) recipient participation in the program type and design, 3) coordination of food aid and commodities (equality in ration sizes, food items), 4) meeting nutritional requirements for a general, complementary, or supplemental ration, 5) appropriate targeting of food aid, 6) commodity management such as assuring safe and clean storage of commodities and inspection of commodities, 7) assuring even pipeline flows, stock levels, and establishment of a supply chain and management, 8) designing and assuring an appropriate distribution method, and 9) training aid staff for their duties as well as using and enhancing local capacities.

As part of the SPHERE Steering Committee for Humanitarian Response, the **International Committee for the Red Cross (ICRC)** supports and endorses the precepts of the SPHERE Manual. An updated circular is being developed by ICRC in 2003 for the use of powdered milk. Previous ICRC policy had remained the same since 1985. The following excerpt reflects that older policy:

“With regard to the shipment of relief for the civilian population, the Fourth Convention provides for *‘the free passage of medical and hospital stores and objects necessary for religious worship, along with special consignments of essential foodstuffs, clothing and tonics for expectant mothers and maternity cases’* (Art. 23). That should be understood to mean basic foodstuffs, necessary to the health and normal physical and mental development of the persons for whom they are intended e.g. milk, flour, sugar, fats, salt [22].”⁵⁵

An international review of the Red Cross publication challenges the Red Cross (and others) to better control distribution of milk. The author states that “poorly managed operations can do more harm than good. Up to the early 1980s, for example, the uncontrolled distribution of powdered milk to large population groups caused more health problems than it solved.”⁵⁶

The **International Federation of Red Cross and Red Crescent Societies** developed a policy in 1997 to address the use of milk powders.⁵⁷ This **Food Aid and Nutrition Policy** states that the International Federation and each individual National Society shall:

1. Seek to provide food aid that is culturally acceptable, nutritionally wholesome and free from undesirable long-term adverse consequences. In the case of food donations that cannot meet these criteria, they may be declined.
2. Request food aid donors to provide adequate funding to meet necessary transportation, storage and distribution costs of food aid.
3. Purchase food either for general ration or supplementary purposes, in a manner which promotes the economic development of the least developed countries and the most vulnerable people in these countries.
4. Make use of food as a general household economic input beyond the acute malnutrition stage, in order to strengthen the security of the most vulnerable, and assist the beneficiaries to gain access to development opportunities such as attendance at schools and training courses.
5. Ensure that the undertaking of supplementary and therapeutic feeding activities, including preventing and/or treating micronutrient deficiencies, primarily Vitamin A, iron and iodine deficiencies, are considered as important, especially when there is no specialized agency willing to undertake the necessary extra feeding programs, and that they are targeted to the most vulnerable.
6. Support the policy concerning safe and appropriate infant and child feeding, and the correct use of complementary foods. Promote and protect breast-feeding and discourage the distribution of breast-milk substitutes. When such substitutes are absolutely necessary, they may be accepted if they are provided together with clear instruction for safe mixing, and for feeding with cup and spoon.
7. Accept, supply and distribute dried skim (DSM) only if it has been fortified with vitamin A and is supplied in a dry form and every effort has been made to ensure its

correct and hygienic use. Liquid or semi-liquid products, including evaporated or condensed milk, are not acceptable.

8. Promote the inclusion of women in all nutritional programs, particularly as regards their involvement in the decision-making processes of these programs, and give priority to the development and promotion of nutrition programs targeted at children and pre-adolescent and adolescent females.
9. Organize and participate in both emergency and long-term national, regional, and local programs to promote nutrition and food safety education, appropriate diets, healthy life styles and breast-feeding.
10. Ensure that all food and nutrition programs have competent surveillance and that the results of such surveillance are available in a timely manner.

The Red Cross Movement as a whole “will try to encompass all one-time food-aid operations within a logical framework of development and pursuit of food security.”

Nongovernmental Organizations

Most U.S. nongovernmental organizations (NGOs) have subscribed to USAID guidelines for distribution of DSM and, if involved in humanitarian emergencies, are signatories of the Infant and Young Child Feeding in Emergencies Guidelines of November 2001. These NGOs include CARE, CRS, Concern, the International Rescue Committee (IRC), SCF/US, and World Vision International (WVI). The policies of each agency contain basic elements such as endorsement of the WHO Code of 1981, support of breastfeeding in general, no free general ration distribution of DSM, and use of DSM only in controlled, supervised, hygienic settings and under specified program conditions. Individual policies of selected agencies are described below.

CARE follows USAID guidelines on use of dried skim milk commodities, both for child feeding programs (including SFP and TFP) and for monetization efforts. Although a separate policy has not been developed, CARE is concerned about the use of food commodities to reduce food insecurity and intends to look more closely into that issue.

CRS developed a policy on the use of milk powders in 2001 and is developing a similar policy for the monetization of milk powders in 2003. The CRS Policy Statement does not support the procurement, distribution, or use of: milk products, breastmilk substitutes, or infant feeding equipment in any emergency or development program except in controlled, monitored situations as defined below.

1. CRS policy on use of milk products and breastmilk substitutes is in compliance with the 1) WHO International Code on Marketing of Breastmilk Substitutes, 2) the UNHCR Policy on the Acceptance, Distribution, and Use of Milk Products in

Emergencies, 3) the Interagency Operational Guidance on Infant and Young Child Feeding in Emergencies, and 4) the SPHERE Project Humanitarian Charter and Minimum Standards in Disaster Response.

2. Milk products, breastmilk substitutes, and infant feeding equipment should not be procured, accepted or distributed by CRS programs except in specific controlled, monitored situations as detailed below. In emergency situations, donations or subsidized breastmilk substitutes should be systematically refused.
3. CRS will not procure or distribute fresh milk products in any circumstance.
4. Any milk products or infant formula procured by CRS should meet international regulations for nutritional fortification with vitamin A. Breastmilk substitutes should be manufactured and packaged in accordance with Codex Alimentarius standards.
5. Infant feeding equipment such as bottles, teats, syringes, and feeding cups with lids should never be purchased or accepted for distribution and their use should be actively discouraged. Open cups should be encouraged as an alternative for all age groups.
6. **No** milk products, breastmilk substitutes or infant feeding equipment should be distributed as part of any CRS general or blanket food distribution or food for work program.

Programs in which the controlled and monitored use of milk products and breastmilk substitutes may be considered:

Selective feeding programs

7. Breastmilk substitutes should only be targeted to those few infants 0–6 months old who require them as determined from assessments by qualified health workers. Targeting criteria for breastmilk substitutes include: death or unavoidable long-term absence of the mother, severe maternal illness, very low maternal milk production, very low birth weight infants who cannot feed, maternal rejection of the infant, and infant dependence on artificial feeding.⁵⁸
8. In situations where a mother is present, every attempt must be made to address breastfeeding problems to protect or re-establish a mother's milk production. Alternatives to breastfeeding by the mother, listed in order of priority, include: expressed breastmilk, wet-nursing, generic commercial formula, branded commercial formula, and home-prepared formulas made according to approved recipes.
9. For those infants requiring breastmilk substitutes, supply should be continued until breastfeeding is re-established or the infant has reached 6 months of age.

10. Distribution of breastmilk substitutes should always be linked to education and training on safe preparation, with home follow-up by health workers trained in appropriate infant feeding techniques and regular monitoring of infant weight and nutritional status. Fuel, water, time requirements and equipment for safe preparation will need to be carefully considered.
11. Infants (0–6 months) and young children (6–24 months) should be fed with a cup, never from bottles, artificial teats, infant cups with lids, or syringes.
12. ***Therapeutic feeding:*** In cases where commercial therapeutic formulations such as F100 cannot be obtained, dried skim or full cream milk is used as a component of high-energy milk for the rehabilitation of severely malnourished individuals in therapeutic feeding programs. Therapeutic feeding is to be conducted only by trained professionals in supervised, facility-based or on-site programs. CRS rarely carries out therapeutic feeding interventions due to the clinical nature of the activity.
13. Specification for therapeutic feeding diets, including the composition of the vitamin and mineral mixes used in therapeutic feeding, is provided in technical manuals. Inappropriate components or quantity of therapeutic feeding mix can lead to severe complications including death. Feeding of any milk-based fluid, including therapeutic milks, using an infant feeding bottle is not permitted. At no time should anyone be allowed to take milk formula off site for consumption.
14. ***Supplementary feeding:*** Limited amounts of dried milk products are sometimes used in supplementary feeding programs, where it is reconstituted for on-site consumption or mixed dry into a cereal blend for children older than six months.
15. Milk products used in dry take home rations must be premixed with cereal flour prior to distribution to program recipients to reduce opportunities for milk being used as a BMS and to increase the chance that the water used in mixing with milk is boiled. If the security of unmixed milk products cannot be guaranteed at the local distribution site, commodities should be premixed at a central location. Under no circumstances should milk products be distributed for off-site consumption that have not been premixed. The ration should include appropriate percentages of fat and protein (17%–20% fat, 10%–12% protein). Household use of the ration should be monitored to insure the ration is not being substituted for breastmilk and proper handling and storage is occurring.
16. Reconstituted milk products or any reconstituted milk based mix is to be consumed only on-site and under supervision; milk products provided for on-site consumption in supplementary feeding programs may not be transferred to a caregiver's own container and carried away from a feeding center. As milk products are good medium for bacterial growth, milk needs to be made up fresh and prepared hygienically shortly before each supplementary feeding session.

On-site institutional feeding programs

17. Qualified health professionals must approve requests for milk products for children in institutional settings. Conditions for use include:
 - Milk products are commonly included in the local diet of children.
 - Milk products can be reconstituted carefully and hygienically under supervision and according to approved recipes.
 - Milk products are consumed on-site under supervision.

Programs with HIV-positive mothers

18. If testing for HIV is not possible, all mothers should breastfeed. In many situations, including most emergencies, the risks of infection, malnutrition and death from inadequate replacement feeding are greater than the risks of HIV transmission and death. Alternatives to breastmilk are too risky to offer if a woman does not know her HIV status.
19. Women who are HIV negative and women who are unsure of their HIV status should breastfeed in the recommended way (exclusive breastfeeding until 6 months, then breastfeeding and complementary feeding for over 2 years).
20. If a confirmed HIV-positive mother chooses to breastfeed, exclusive breastfeeding is recommended during the first 6 months of life because a combination of breastfeeding and artificial feeding may increase the risk of HIV transmission. If replacement feeding can be done in a way that is acceptable, feasible, affordable, and safe, then the mother may want to consider it as an option. It is advisable for a confirmed HIV-positive woman to stop breastfeeding as soon as she is able to prepare and give her infant adequate, safe and hygienic replacement feeding with breastmilk substitutes.
21. Breastmilk substitutes should only be distributed to confirmed HIV-positive mothers who have made an informed decision to choose replacement feeding. Distribution to an individual mother should only occur where she is receiving supportive health and nutritional services.

In the **Save the Children Alliance**, **SCF/US** also signed the Interagency Operational Guidance on Infant and Young Child Feeding in Emergencies. SCF/US supports and abides by the USAID guidelines and has no separate guidance on use of NFDM in humanitarian programs or for monetization. **SCF/UK's** position on the use of NFDM is summarized in the Interagency Operational Guidance on Infant and Young Child Feeding in Emergencies. This guidance emphasizes the importance of avoiding the uncontrolled distribution of products that might be used as breastmilk substitutes. SCF/UK is not involved in monetization or dairy promotion initiatives using milk powders.

World Vision's policy on the use of milk products was first developed in 1991 and updated in 1997. WVI also has a draft policy on the monetization of milk powders (2001). The main points of these policies are described below.

Rationale: Sometimes due to famine, earthquakes, drought, wars, or other man-made or natural calamities, infants are often forcibly separated from their mothers, while some mothers are too weak or otherwise too indisposed to breastfeed. Under these circumstances breastmilk substitutes will be needed to ensure a safe and adequate diet for the youngest members of the population affected. These substitutes will be best provided as part of an organized and supervised disaster relief action that includes appropriate safeguards to insure that they are distributed only for infants who have to be fed on breastmilk substitutes and, as long as they have to be fed on them, by those who are prepared to administer them correctly. A return to breastfeeding, if at all possible, should nevertheless remain a priority health objective.

*Policy summary:*⁵⁹ World Vision will honor, abide by, and promote the principles embodied in the aim of the International Code of Marketing of Breastmilk Substitutes, which was jointly developed by WHO and UNICEF; WHO/UNICEF's Innocenti Declaration on "Ten Steps to Successful Breastfeeding;" and UNHCR's policy for Acceptance, Distribution, and Use of Milk Products in Refugee Feeding Programs in protecting, promoting and supporting breastfeeding and safe and appropriate infant and young child feeding.

Local production: Wherever possible, World Vision will encourage and support local production of appropriate complementary weaning foods, with the use of locally available nutrition food resources, with the aim of self-reliance and respect for local culture and eating habits.

Excerpts from World Vision's Procurement and Use of Milk Products policy follow:

World Vision will support, protect, and promote exclusive breastfeeding of infants in the first 6 months of their lives, in all its health programs and communities in which it has activities.

World Vision affirms and will promote the WHO/UNICEF effort in implementing the "Ten Steps to Successful Breast-Feeding," as contained in the Innocenti Declaration.

World Vision will provide training in breastfeeding management and relactation techniques, or access to training where it is available, when appropriate.

World Vision will provide extra food for the lactating mothers in its programs whenever necessary to ensure proper lactation and protection of mother's health.

World Vision will honor, abide by, and promote WHO/UNICEF's International Code of Marketing of Breastmilk Substitutes and UNHCR's Policy for Acceptance, Distribution and Use of Milk Products in Refugee Feeding Programs. (see appendix I.)

World Vision will not purchase (except where specified below), advertise, or promote infant formulas or follow-up milks in any way and will discourage their distribution and use.

World Vision will accept and supply donations of only dry milk products fortified with vitamin A, used under strict control and supervision and in hygienic conditions for on-the-spot consumption in orphanages and among displaced and refugee children. WV will not accept liquid or semi-liquid milk, including evaporated or condensed milk.

World Vision will not accept or supply infant formulas for use in hospitals, health centers, dispensaries, clinics, nurseries, or for pregnant women and lactating mothers, barring the three exceptions listed in the paragraph above. Instead, World Vision will encourage mothers to be “baby friendly” by adopting “Ten Steps to Successful Breast-Feeding.”

World Vision will not accept donations of products with company’s labels. In those very few situations where the infants cannot or should not be breast-fed, the commodity should be purchased on the open market by WV and use without association or implied endorsement.

World Vision will advocate that when donations of milk products, DSM, and infant formulas are supplied to orphanages, or to programs for displaced or refugee children, specific donors will also be approached for cash contributions to be specifically earmarked for operational costs including provision of safe drinkable water to ensure the safe use of those commodities as well as the use of clean cups and spoons for feeding purposes.

All milk products supplied to the orphanages and programs for displaced and refugee children must be of high quality and take into account the climatic and storage conditions of the country where they are to be used.

World Vision supports the principle that in general “dry rations,” (protein sources such as pulses, meat and fish) are preferred over dry milk products, CSB, CSM, and breast milk substitutes. For displaced and refugee children and those in orphanages more than six months of age, where dry milk products, CSB, or CBM are used, WV will ensure that suitable cereal flour, sugar and oil are “premixed” in a central site and their use supervised.

Milk products such as DSM should never be given on their own as part of a take home ration.

All milk products supplied to orphanages and program for displaced and refugee children must have a shelf-life of at least 1 year after arrival in the country.

Donations of all milk products will be accepted only after receiving written approval from the appropriate ministry of the government of the recipient country.

Procurement of all milk products must be approved by the national Director. Any exceptions to the above policy must be approved by 1) the National Director or the

Regional Director/VP, **and** 2) by a representative of the Ministry of Health in the country concerned, **or** the regional health advisor

In 1997 WVI drafted an internal policy on monetization of food commodities. The section dealing with monetization of milk powders is excerpted below.⁶⁰

18.0 RESTRICTED COMMODITIES

18.1 NON-FRESH DAIRY PRODUCTS (NFDPs)

Recognizing inherent risks associated with the programming of Non-Fresh Dairy Products (NFDPs) such as Whole Milk Powder (WMP), Non-Fat Dry Milk Powder (NFDM), Evaporated Milk, Condensed Milk, Corn Soy Blend (CSB), Corn Soy Milk (CSM), etc., WVI SHALL ENSURE that any end-use arising from the monetization of NFDPs is in compliance with the principles of the WVI Procurement & Use of Milk Products Policy (5140/Oct-97). WVI SHALL ONLY sell NFDPs to buyers who provide adequate assurance that NFDPs will be used only as an ingredient in the manufacture, under strict sanitary conditions, of products such as yogurt, ice cream, bakery products, adult cereals, flavored drinks, etc. WVI SHALL further require a written undertaking from buyers that NFDPs purchased from WVI will not be used in the production of any breast milk substitute (infant formulas, etc.).

International Advocacy Groups

Key advocacy groups such as IBFAN and WABA have evolved to support breastfeeding and promote adherence to the WHO Code of Marketing of Breastmilk Substitutes. Distribution of milk powders are covered as part of these advocacy efforts.

IBFAN's website (www.ibfan.org) highlights the main failures of infant and young child feeding experienced during the Balkan crisis of 1999. These included unsolicited donations, in which planes loaded with details of cargo other than tonnage and unsolicited donations arrived by road as well; often untargeted distributions without proper record keeping; late coordination of agency use and distribution of breastmilk substitutes; and the lack of a real system to ensure respect for and monitoring of the WFP guidelines advising against the general distribution of dried milk powder. IBFAN produced a manual for health workers ("Protecting Infant Health," April 1999) that is available on line. Links are provided to existing major policy and guidelines.

WABA⁶¹ is a global advocacy group that supports breastfeeding, working in close liaison with UNICEF. Like IBFAN, WABA strongly endorses and supports the WHO 1981 Code as well as the Innocenti Declaration adapted by 30 nations in August 1990. This declaration states that, "*all women should be enabled to practice exclusive breastfeeding for six months and to continue to breastfeed while providing appropriate complementary foods for up to two years of age or beyond.*" WABA supports the Innocenti Declaration through advocacy to protect, support, and promote breastfeeding and maternal and child health; to promote better HIV/AIDS and breastfeeding knowledge to reduce mortality; to increase awareness of the rights of children and women to adequate food, health, and care, especially in

developing countries; and to strengthen alliances in support of young child nutrition and care involving humanitarian assistance among other topics.⁶²

WABA has one declaration relevant to milk powder use for HIV/AIDS and breastfeeding (cited under issues in section I).

SECTION IV: POSSIBLE CHANNELS FOR USE OF NFDM IN HUMANITARIAN OPERATIONS

Because this research was brief and non-exhaustive the author is unable to make recommendations as such. Possible channels for use are discussed below.

Given the breadth and depth of literature about the misuse of dry milk powders for infant feeding and the various USAID policies against take-home free distribution of milk, it is suggested that these policies remain as is, even given additional resources for non-fat dry milk.

Outlets and uses for NFDM to consider

1. Promotion of dairy industries (with some conditions. Proposals that aim to influence milk consumption patterns or improve local dairy industries in the countries proposed should be based on sound knowledge of milk demand and supply in the region and consider such aspects as the efficient utilization of domestic productive resources and the needs of the majority of milk consumers).
2. School feeding or feeding in orphanages where milk is consumed on site and reconstituted in hygienic supervised conditions with discussion of or preparations for alternative foods in the event that NFDM is no longer available
3. Supplementary feeding and therapeutic feeding where NFDM is appropriately mixed with cereals or components of high-energy milk (e.g., oil and sugar) under supervision and in a hygienic environment coupled with nutrition education. This would include replacement feeding for infants of HIV-positive mothers (tested), preferably only after 6 months of age.
4. Direct distribution as part of blended commodities, such as in corn soya milk or wheat soya milk, in food-for-work or employment generation schemes, and in emergency operations.
5. Use in U.S. production of therapeutic milks and biscuits for humanitarian operations.
6. Animal replacement feeding in cases of drought and emergencies where milk supplies compete for human and animal consumption. Pastoral communities would benefit from this type of aid, from not only preservation of assets (livestock) but also human milk consumption in areas where milk is traditionally consumed as part of the diet. One concern is balancing preservation of livestock where over breeding and overpopulation cause undue environmental stresses on the land, sustainable livelihoods, and the lives of pastoralists.

Monetization

7. Provided a requisite Bellmon analysis is conducted and little or no market disincentives are present, NFDM could be monetized with favorable financial returns for the cooperating sponsor. One provision might be that NFDM be used in industry where there is no local production of breastmilk substitutes. Another suggested provision is the use of NFDM in production of yogurt, cheese, ice cream, and other dairy products to help promote dairy industries, particularly small-scale operations that will benefit local farmers and commerce.

ENDNOTES

¹ “Milk powder,” “dried skim milk” (DSM), and “non-fat dried milk” (NFDM) are used interchangeably in this report. Unless otherwise specified, DSM is assumed to be “enriched,” or fortified with vitamin A and vitamin D.

² Reutlinger, S. (World Bank), and J. Katona-Apte (World Food Programme). Hunger, health, and society: The nutritional impact of food aid: Criteria for the selection of cost-effective foods. *Food and Nutrition Bulletin* 6 (4), December 1984.

³ Ibid.

⁴ A protein rich mixture based on DSM, toasted wheat flour, fish flour and sunflower meal. By E. Yanez, et. al. 1971 University of California at Davis. Study conducted in Chile.

⁵ <http://www.fao.org/docrep/003/t0251e/T0251E08.ht>

⁶ Vaughn-Fritz, K., and M. N'Dy. 1993. Project assistance completion report for Mauritania Drought Emergency Food Assistance Project, USAID, REDSO/WCA. September. Washington, DC.

⁷ USAID. 1993. Audit of the vulnerable groups assistance program in Russia under project no. 110-0001. Audit report 8-110-93-08, 24 September. Bonn: Office of the Inspector General, Regional Inspector General for Audit.

⁸ Ferris-Morris, M. 2002. Planning for the next drought: Ethiopia Case Study. Draft. Washington, DC: USAID.

⁹ Testimony of Senator James McGovern, Massachusetts, hearing on “Half-a-Loaf—The Impact of Excluding Surplus Commodities from American’s Response to Global Hunger,” June 4, 2002, before the Subcommittee on Oversight of Government Management and Restructuring and the District of Columbia Committee on Governmental Affairs. Washington, DC: U.S. Senate.

¹⁰ Land O Lakes, ACDI/VOCA, Mercy Corps International, and IRD.

¹¹ Kwa Maritane (South Africa), 1998, Noting Decline In Milk Consumption Among Children International Conference Calls For Increased Milk Advertising Aimed At School Children, Press Release 98/63, FAO Press Releases, 29 October.

¹² Berg, A. 1973. The nutrition factor. Washington, DC: Brookings Institution.. pp. 118–19.

¹³ Powers, Colette, 2001. Bellmon analysis. Monetization of NFDM in Rwanda. Washington, DC ACDI/VOCA.

¹⁴ Marian Zeitlin, et. al, 1987. Interim Evaluation Report- April 1987, AID –ORT Food For Peace, MCH Component Area Nutrition Improvement Project, Zaire.

¹⁵ Ecuador. Agricultural Commodity Foreign Donation Agreement. (section 416) July 30, 1987.

¹⁶ FAO. Proceedings on the FAO Expert Consultation on the substitution of imported concentrate foods in animal production systems in developing countries, September 1985, Bangkok.

¹⁷ Holden, S. et al. Pastoral dairy marketing and household wealth interactions and their implications for calves and humans in Ethiopia. *Human Ecology* 19 (1) 1991, pp. 35-59.

¹⁸ USDA. Governor Veneman Announces Feed Assistance Program Sign Up to begin Aug. 28th. 2002. USDA Newsletter Publication.

¹⁹ USAID Mission to Ecuador. 1987. Memorandum of understanding between the Government of Ecuador and the Government of the United States of America and the Regional Agricultural Services Cooperative. Project No: 518PL021, Oct. 1987. Quito.

²⁰ Von Massow, V. 1985. Dairy imports into sub-Saharan Africa and their policy implications. *ILCA Bulletin* 21, January. Addis Ababa, Ethiopia.

viii Kerven, Carol. 1987. Role of milk in a pastoral diet and economy: The case of South Darfur, Sudan. *ILCA Bulletin*. Addis Ababa, Ethiopia.

²² Experiences in dairy development. Available at <http://www.fao.org/ag/Aga/AGAP/WAR/warall/t3080b>

²³ Adapted from Land O’Lakes Web site: <http://www.landolakesidd.com>

²⁴ Berg, Alan. 1973. The Nutrition Factor. The Brookings Institution, Washington, DC.

²⁵ Catholic Relief Service, 2001. Policy on the Procurement, Distribution and Use of Milk Products and Infant Feeding Equipment in Field Programs. September. Baltimore, MD.

²⁶ McGrath, M., A. Seal, A. Taylor, and L. Gostelow. 1999. Meeting the nutritional needs of infants during emergencies: recent experiences and dilemmas. Report of an international workshop. London: Institute of Child Health and the Save the Children Fund.

²⁷ Review of Policies and Guidelines on Infant Feeding in Emergencies: Common Ground and Gaps, Seal A, Taylor A, Gostelow L, and McGrath M (2001) *Disasters* 25, 136-148

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- ²⁸ Dawson, Anthony. 1985. In defense of food aid: Some answers to its critics. *International Labor Review*, January/February.
- ²⁹ Rosen, Anthony. 1984. West's food aid isn't too fulfilling. *Wall Street Journal*, January 17.
- ³⁰ Von Massow, V. 1985. Dairy imports into sub-Saharan Africa and their policy implications. *ILCA Bulletin* 21, January.
- ³¹ Ibid.
- Review of Policies and Guidelines on Infant Feeding in Emergencies: Common Ground and Gaps, Seal A, Taylor A, Gostelow L, and McGrath M (2001) *Disasters* 25, 136-148
- ³² Speedy, A. W. The global livestock revolution: Opportunities and constraints for the feed and livestock industries. 199u. In FAO, IFRI, and ILRI. *Livestock to 2020: The next food revolution*. Animal Production and Health Division, Food and Agriculture Organization of the United Nations. Rome.
- ³³ WHO (1991) defines replacement feeding as feeding a child who is not receiving any breastmilk with a diet that provides all the nutrients the child needs. WHO guidance suggests that during the first 6 months this is with a suitable breastmilk substitute, and after 6 months should be with a suitable breastmilk substitute and complementary foods given 3 times a day. If suitable breastmilk substitutes are not available, appropriately prepared family foods should be enriched and given 5 times a day.
- ³⁴ Latham, Michael. 2000. Appropriate feeding methods for infants of HIV infected mothers in sub-Saharan Africa. *British Medical Journal* 320: 1656–60. Ithaca, NY: Cornell University.
- ³⁵ Preble, E, and E. Piwoz. 2001. Prevention of mother-to-child transmission of HIV in Africa: Practical guidance for programs. Washington, DC: SARA Project.
- ³⁶ Available at: <http://www.infactcanada.ca>
- ³⁷ Research has shown that mixed feeding (feeding breastmilk plus other foods or liquids) carries a higher risk of transmitting HIV, at least in the first 3 months of life, because of the associated irritation of the infant's gut. The risk of mother-to-child transmission of HIV depends on a number of factors, including the pattern and duration of breastfeeding and the mother's breast health, viral load, immune status, and nutritional health.
- ³⁸ UNICEF, UNAIDS, WHO. 1998. HIV and infant feeding. Geneva.
- ³⁹ Adapted from draft correspondence for the 2002 USAID Commodity Reference Guide Non Fat Dry Milk Fact Sheet.
- ⁴⁰ American Academy of Pediatrics. Practical significance of lactose intolerance in children. 2 (2), August 1978, pp. 240–45.
- ⁴¹ Suarez, F.L., and D.A. 1997. Diet, genetics, and lactose intolerance. *Food Technology*, March.
- ⁴² Ozsoylu, S. 1991. Letter to the editor. *Lancet* 338, November 16.
- ⁴³ FAO. 1996. Requirements for effective fortification in food aid programmes. Report of an FAO technical meeting. Rome, November 20–23, 1995.
- ⁴⁴ American Academy of Pediatrics. 1997. Policy statement. 100 (6), December, p. 1035–9.
- ⁴⁵ Milk powder includes dried milk, dried skim milk, and breastmilk substitutes (non-infant formula).
- ⁴⁶ http://europa.eu.int/comm/europeaid/tender/gestion/index_en.htm
- ⁴⁷ Quoted from WFP. 2000. Food and Nutrition Handbook, annex 2.3: Guidelines for the use of milk powder. Rome. Pp. 112–14.
- ⁴⁸ A thorough analysis of the fault points from early aid receipt and distribution are covered in the proceedings of a 1999 workshop. McGrath, M. et al. 1999. Meeting the nutritional need of infants during emergencies: Recent experiences and dilemmas. Report of an International Workshop of Save the Children Fund and the Institute of Child Health. London, November 1999.
- ⁴⁹ WFP/PO/183. 1990. Guideline for the use of dried milk powder in all WFP-assisted projects and operations. May 25. Rome: FAO.
- ⁵⁰ WFP. 2000. Food and Nutrition Handbook, annex 2.2: Guidelines for the use of milk powder. Rome. pp. 112–14.
- ⁵¹ Organizations endorsing this policy as of November 2001 include: ACC/SCN, Action against Hunger UK and Spain, Australian Breastfeeding Association, CAFOD, CARE, CRS-USCCB, Concern Worldwide, Emergency Nutrition Network, Geneva Infant Feeding Association, GOAL, IBFAN/ICDC, Institute for Child Health, International Lactation Consultant Association, IRC, LINKAGES, MSF-Holland, Oxfam, SCF-USA and UK, Fondation Terre des hommes, Trocaire, UNHCR, UNICEF, USAID, Vereniging Borstvoeding

Natuurlijk, Women's Commission for Refugees Women and Children, WFP, WHO, World Vision International.

⁵² The guidelines are based on the Infant and young child feeding in emergencies: Operational guidance for emergency relief staff and programme managers of the Interagency Working Group on Infant and Young Child Feeding in Emergencies, July 2001. The full set of guidelines can be found online at <http://www.enonline.net/ife/ifeops.html>.

⁵³ Joint Policy Statement (JPS) on Infant feeding for the Balkan Region, UNHCR, UNICEF, WFP, and WHO, June 1999.

⁵⁴ The SPHERE Project is currently under revision. The second version is anticipated in late 2003 or 2004.

⁵⁵ Krill, Françoise. 1985. The protection of women in international humanitarian law. Geneva: *International Review of the Red Cross* 249:337–63.

⁵⁶ Perrin, Pierre. 1998. The impact of humanitarian aid on conflict development. *International Review of the Red Cross* 323: 319–33.

⁵⁷ This policy was adopted by the 11th Session of the General Assembly of the International Federation of Red Cross and Red Crescent Societies, November 1997.

⁵⁸ Catholic Relief Services. 2001. Policy on the procurement, distribution and use of milk products and infant feeding equipment in field programs. September.

⁵⁹ World Vision International. Procurement and use of milk products: Policy governing the use of milk products and infant formula in field programs. October. Monrovia, CA.

⁶⁰ ———. 2001. Partnership monetization policy paper. Draft VI. June 20. Monrovia, CA.

⁶¹ www.waba.org

⁶² From the goals of Second Forum in 2002, Arusha, Tanzania, September 23–27, 2002.

Annex I. Overview of Select International Organizations' Statements on Use of Milk in Humanitarian Operations

'The Code' and related documents*

World Health Organization 1981 'The International Code of Marketing of Breast-milk Substitutes'

World Health Organization 1986 'Guidelines Concerning The Main Health and Socio-economic Circumstances in Which Infants Have to be Fed on Breast-Milk Substitutes' (WHO A39/1986/REC/1 Annex 6, Pt 2)

World Health Organization 1994 Infant and Young Child Nutrition (WHA 47.5)

Donor Guidelines

Government of the Netherlands 1991 'Guidelines for the Use of Milk Products in Food Aid Programmes'

USAID/BHR/OFDA 1998 'Field Operations Guide for Disaster Assessment and Response'

Field Manuals

UNICEF 1986 'Assisting in Emergencies'

Medecins Sans Frontieres 1995 'Nutrition Guidelines'

Oxfam 1996 'Feeding in Emergencies for Infants Under Six Months: Practical Guidelines'

UNHCR - 'Hand Book for Emergencies'

Policy Statements and Guidelines

International Red Cross - 'The Use of Artificial Milks in Relief Actions'

UNHCR 1989 'Policy for Acceptance, Distribution and Use of Milk Products in Refugee Feeding Programmes'

World Vision 1991 'Procurement and Use of Milk Products'

WFP 1992 'Guidelines for the Use of Dried Milk Powder in All WFP-Assisted Projects and Operations'

WFP 1992 'WFP Promotes Breastfeeding in Several Ways'

UNHCR 1993 'Policy of the UNHCR Related to the Acceptance, Distribution & Use of Milk Products in Feeding Programmes in Refugee'

UNHCR/WFP 1999 'Guidelines for Selective Feeding Programmes in Emergency Situations'

UNICEF/UNHCR/WFP/WHO April 1999 UN Joint Statement 'Policy on Infant Feeding in the Balkans'

UN Civil Administration October 4th 1999 'Joint UN Agency Statement on Donations of Breast-milk Substitutes' Secretariat for Health (Kosovo)

UN MOUs

WFP/UNHCR 1997 'Memorandum of Understanding on the Joint Working Arrangements for Refugee, Returnee and Internally Displaced Persons Feeding Operations'

UNICEF/WFP 1998 'UNICEF/WFP Memorandum of Understanding in Emergency and Rehabilitation Interventions'

Other

Sphere Project 1998 'Humanitarian Charter and Minimum Standards in Disaster Response'

Ad hoc Group on Infant 1999 'Infant Feeding in Emergencies' Feeding in Emergencies

Reference: Meeting the nutritional needs of infants during emergencies: recent experiences & dilemmas. International Workshop, Institute of Child Health, London, November 1999, by M. McGrath, et.al.

*For more information see 1) *The International Code of Marketing of Breastmilk Substitutes*, WHO 1981

<http://www.ibfan.org/english/resource/who/fullcode.html> 2) *Interagency Operational Guidance on Infant and Young Child Feeding in Emergencies*, <http://www.enonline.net/ife/ifeops.html> 3) *Handbook for*

Emergencies, United Nations High Commissioner for Refugees, second edition, 1999 4) *The Sphere Project: Humanitarian Charter and Minimum Standards in Disaster Response*, Oxfam Publishing, 2000.
www.sphere.org